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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In Re Application of

Claude Scher

Serial No: 10/064,128

Group Art Unit: 2857

Filed: 06/13/2002

Examiner: Charioui, Mohamed

For: DIAGNOSTIC SYSTEM FOR A DATA ACQUISITION SYSTEM

Attorney Docket No: 125755 (GEMS 0160 PUS)

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**BRIEF ON APPEAL**

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Sir:

The following Appeal Brief is submitted pursuant to the Notice of Appeal filed on August  
17, 2004, for the above-identified application.

10/20/2004 EAREGAY1 00000037 500476 10064128

01 FC:1402 340.00 DA

**I. Real Party in Interest**

The real party in interest in this matter is the General Electric Company.

**II. Related Appeals and Interferences**

There are no other known appeals or interferences which will directly affect or be directly affected by or have bearing on the Board's decision in the pending appeal.

**III. Status of the Claims**

Claims 1-20 stand rejected in the Final Office Action. A copy of the claims on appeal is attached as an Appendix.

**IV. Status of Amendments Filed After Final**

There have been no amendments filed subsequent to the final rejection.

**V. Summary of the Invention**

A high level system view of the system is illustrated in Figure 1. The details of Figure 1 are described in paragraphs 14-16.

Claim 1 is directed to a diagnostic system 10 for a data acquisition system that includes a computer controller 14 coupled to the data acquisition system. A display device 22 is coupled to the computer controller 14. The controller receives data from the data acquisition system, and diagnoses a problem in response to the data. The controller generates a screen display corresponding to an architectural representation of the data acquisition system. A screen display 70 is illustrated in Figure 4 and is described in paragraphs 19, 20 and 21. The controller 14 generates screen indicia 82A-82D on the display device corresponding to a location of a problem on the schematic representation of the data acquisition system. As mentioned in paragraph 20, boxes 82A, 82B, 82C, and 82D correspond to errors found in the critical to quality characteristics. Thus, these components can easily be replaced by merely looking at the schematic representation on the screen indicia. That is, there is a one-to-one basis with the circuit board and the data acquisition that corresponds to the screen indicia. Thus, the claims recite a "architectural representation" of the data acquisition system.

Claim 2 specifically recites that the data is stored in a memory 18.

Claim 3 recites that the computer controller and data acquisition system are coupled together by a network represented by interconnection 36.

Claim 4 recites that the network comprises a public service telephone network.

Claim 5 recites that the network comprises the internet.

Claim 6 recites that the controller has a web browser and that the controller generates screen indicia through the web browser.

Claim 7 is an independent claim and recites a diagnostic system 10, a data acquisition system 30 coupled to the diagnostic system, a computer controller 14 coupled to the data acquisition system 30, a display device 22 coupled to the computer controller 14. The controller 14 receives the data from the data acquisition system. The controller diagnoses a problem in response to the data. The controller generates a screen display 70 corresponding to an architectural representation of the data acquisition system. The controller 14 generates screen indicia 82A-82D on the display device 22 corresponding to a location of the problem on the schematic representation of the data acquisition system. The limitations of claims 7 and 1 are similar and thus will be described together below.

Claim 8 recites a computed tomography system comprising a system as recited in claim 7. A CT system is illustrated as box 12 in Figure 1.

Claim 9 is similar to claim 8 but further refines that the data acquisition system is disposed in the computed tomography system 12.

Claim 10 is dependent upon claim 9 and recites that the computed tomography system comprises a detector assembly. The data acquisition system is disposed within the detector assembly.

Claim 11 recites that the data is stored in a memory.

Claim 12 recites that the data is communicated in the data acquisition system.

Claim 13 recites that the data acquisition system is located remotely from the diagnostic system 12.

Claim 14 further recites a network 36 coupling the computer controller and the data acquisition system 30.

Claim 15 recites that the controller 14 has a web browser. The controller generates the screen indicia 82A-82D through the web browser.

Claim 16 is an independent claim and recites a method for operating a diagnostic system that includes receiving data from a data acquisition system 30. The claim further recites diagnosing a problem in response to the data and generating a screen display 70 corresponding to a schematic representation of the data acquisition system 30. The method also includes generating a screen indicator on the display device corresponding to a location of a problem on the schematic representation of the data acquisition system.

Claim 17 recites that the data comprises receiving data through an interface 36.

Claim 18 recites that receiving data comprises remotely receiving data.

Claim 19 is dependent upon claim 1 and recites that the data is communicated from the data acquisition system.

Claim 20 recites that the data acquisition system is disposed within a CT system 12.

As mentioned in paragraph 21 of the present application, the present invention allows a technician or assembly person to easily locate and identify the problem in a data acquisition circuit or other complicated circuit without the need to interpret a vast amount of data. In prior systems, finding the location of a certain fault once a fault was identified was difficult and time consuming and led to errors. The present invention allows an architectural representation to be formed of this schematic of the system so that the location of the fault may be easily identified and a remedy applied rapidly thereto.

## **VI. Grounds of Rejection to be Reviewed on Appeal**

The following issues are presented in this appeal:

Whether claim 8 is improper for failing to further limit the subject matter of the previous claim.

Whether claims 1-8, 16 and 17 are anticipated under 35 U.S.C. §102(e) by *Schleiss* (6,298,454).

Whether claims 9-14 and 18-20 are obvious under 35 U.S.C. §103(a) as being unpatentable over *Schleiss* in view of *Taguchi et al* (5,807,256).

## **VII. Argument**

### **The Rejection of Claim 8**

#### **Claim 8**

The Examiner objects to claim 8 for being improper independent form under 37 C.F.R. 1.75(c). The Examiner states that claim 8 recites the same limitations as claim 7 and therefore does not further limit claim 7. Appellants respectfully disagree. Claim 8 is directed to a computed tomography system, whereas claim 7 is specifically directed to a general "system." A preamble may be limiting and thus claim 8 limits the "system" to a computed tomography system. Therefore, Appellants respectfully request the Board to reverse the Examiner's objection to this claim.

## **The Rejection of Claims 1-8, 16 and 17**

### **Claim 1**

The *Schleiss* reference is a diagnostic tool that automatically collects data and stores data indicative of a variability parameter, a mode parameter, and a status parameter and a limit parameter associated with each of different devices, loops or function blocks within a process control system.

Appellants admit that the *Schleiss* reference shows diagnostics in a process control system. However, the Examiner points to Col. 3, lines 40-51 and 50-64, for the premise that an architectural representation of the data acquisition system is known and that the screen indicia on the display corresponding to a location of a problem on the schematic representation of the data acquisition is set forth therein. Applicants have reviewed these sections and can find no teaching or suggestion for the architectural representation of the data acquisition system and screen indicia display corresponding to a location of the problem on a schematic representation of the data acquisition system. Such a display, for example, is set forth in the present invention and Figure 4 which shows screen indicators 82a-d correspond to locations of a problem on the schematic representation of the data acquisition system. No such teaching or suggestion is provided in the *Schleiss* reference. Therefore, Appellants respectfully request the Board to reverse the Examiner's position with respect to claim 1.

### **Claims 2-5**

Claims 2-5 are dependent upon claim 1 and are believed to be allowable for the same reasons set forth above.

### **Claim 6**

Claim 6 recites that the controller has a web browser and that generating the screen indicia is performed through the web browser. No teaching or suggestion is formed in the *Schleiss* reference for a web browser. Appellants therefore respectfully request the Board to reverse the Examiner's position with respect to claim 6 independent to the determination of claims 1-5.

### **Claim 7**

Claim 7 is a specific embodiment of claim 1 and recites in more detail a diagnostic system and a data acquisition system. The remaining portions of claim 7, that is, the computer controller, the display device and the operation of the controller are identical to that of

claim 1. Claim 7 is similar to claim 1 in that the screen indicia on the display device corresponding to a location of the problem on the schematic representation of the data acquisition system is also recited. As mentioned above, this is not taught or suggested in the *Schleiss* reference. Appellants therefore respectfully request the Board to reconsider the rejection of claim 7.

#### **Claim 8**

Claim 8 is directed to a CT system. No teaching or suggestion is provided in the *Schleiss* reference for a CT system. Appellants therefore respectfully request the Board to reverse the rejection of claim 8.

#### **Claim 16**

Claim 16 is directed to a method that contains similar limitations with respect to the architectural representation of the data acquisition system and the screen indicia. Therefore, claim 16 is also believed to be allowable for the same reasons set forth above with respect to claim 1. Therefore, because each and every element of the claims is not found in the *Schleiss* reference, applicants respectfully request the Board to reverse the Examiner's position.

#### **Claim 17**

Claim 17 recites that the data is received through an interface. The *Schleiss* reference does not teach or suggest the use of an interface in connection with the missing elements of the architectural representation described above with respect to claim 16. Therefore, Appellants respectfully request the Board to reverse the Examiner's position with respect to claim 17 independent of claim 16.

### **The Rejection of Claims 9-14 and 18-20 Over *Schleiss* in View of *Taguchi***

#### **Claim 9**

The Examiner admits on page 3 of the Final Office Action that, "Schleiss et al teach the system as stated above except that the data acquisition system is disposed within the computed tomography system." The Examiner cites the *Taguchi* reference for the CT system. The Examiner points to Col. 12, line 60 to Col. 13, line 7, Figure 1, and Col. 16, lines 41-67, and Col. 12, lines 13-40. This corresponds to a first embodiment recited in the *Taguchi* reference. As cited in the paragraph beginning on line 6 of Col. 12, the first embodiment is a picture

archiving communication system containing a medical information processing system according to this embodiment. Because this is a picture archiving system, claim 12 recites that various types of modalities of images or pictures may be stored therein. However, the present invention does not relate specifically to a computed tomography system. The system is an archiving communication system rather than an actual CT type system. Claim 9 specifically recites a data acquisition disposed within a CT system. Because a computed tomography system is illustrated, a data acquisition therein is also not set forth in either the *Taguchi* reference or the *Schleiss* reference. Appellants respectfully request the Board to reverse the Examiner's rejection with respect to this claim.

#### **Claim 10**

Claim 10 recites that the computed tomography system comprises a detector and a data acquisition system disposed within the detector assembly. Because no computed tomography system is taught or suggested in the *Taguchi* reference, this claim is also believed to be independently patentable. Appellants respectfully request the Board to reverse the Examiner's rejection with respect to this claim.

#### **Claims 11 and 12**

Claim 11 recites that the data is stored in a memory. Claim 12 recites that the data is communicated from the data acquisition system. These elements in combination with the recitations of claim 7 are not taught or suggested in either the *Taguchi* and *Schleiss* references. Appellants respectfully request the Board to reverse the Examiner's rejection with respect to these claims.

#### **Claims 13 and 14**

Claim 13 recites that the data acquisition system is located remotely from the diagnostic system. Claim 14 recites that a network couples the computer controller and the data acquisition system. Although the *Schleiss* reference is a diagnostic tool, the diagnostic system is not remotely located from the data acquisition system. Therefore, claims 13 and 14 are also believed to be allowable over *Schleiss* in view of *Taguchi*. Appellants respectfully request the Board to reverse the Examiner's rejection with respect to these claims.

#### **Claim 18**

Claim 18 depends upon claim 16 and recites that receiving the data comprises remotely receiving the data. Appellants can find no teaching or suggestion in either the *Schleiss* reference or the *Taguchi* reference for remotely receiving the data. Appellants respectfully request the Board to reverse the Examiner's rejection with respect to this claim.

### Claim 19

Claim 19 recites that the data is communicated from the data acquisition system. No teaching or suggestion is provided in either reference for a data acquisition communicating the data.

### Claim 20

Claim 20 depends upon claim 16 and recites that the data acquisition system is disposed within a CT system. As mentioned above, no teaching or suggestion is provided in either the *Schleiss* reference or the *Taguchi* reference for a CT system. The *Taguchi* reference is a medical information processing system and not a CT system. The *Schleiss* reference also does not teach or suggest a CT system as admitted by the Examiner as pointed to above. Appellants therefore respectfully request the Board to reconsider the rejection of claim 20 as well.

### VII. Appendix

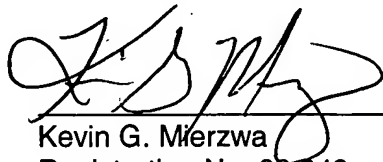
A copy of each of the claims involved in this appeal, namely claims 1-20 are attached hereto as Appendix A.

### X. Conclusion

For the foregoing reasons, Appellants respectfully request that the Board direct the Examiner in charge of this examination to withdraw the rejections.

Please charge any fees required in the filing of this appeal to deposit account 50-0476.

Respectfully submitted,

  
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## **APPENDIX A**

1. A diagnostic system for a data acquisition system comprising:  
a computer controller coupled to the data acquisition system;  
a display device coupled to the computer controller;  
said controller receiving data from said data acquisition system, diagnosing a problem in response to said data, said controller generating a screen display corresponding to an architectural representation of the data acquisition system, said controller generating a screen indicia on said display device corresponding to a location of a problem on the schematic representation of the data acquisition system.
2. A diagnostic system as recited in claim 1 wherein said data is stored in a memory.
3. A diagnostic system as recited in claim 1 further comprising a network coupling said computer controller and said data acquisition system.
4. A diagnostic system as recited in claim 3 wherein said network comprises a public service telephone network.
5. A diagnostic system as recited in claim 3 wherein said network comprises the Internet.
6. A diagnostic system as recited in claim 1 wherein said controller has a web browser, said controller generating the screen indicia through said web browser.
7. A system comprising:  
a diagnostic system;  
a data acquisition system coupled to the diagnostic system;  
a computer controller coupled to the data acquisition system;  
a display device coupled to the computer controller;  
said controller receiving data from said data acquisition system, diagnosing a problem in response to said data, said controller generating a screen display corresponding to an architectural representation of the data acquisition system, said controller generating a

screen indicia on said display device corresponding to a location of a problem on the schematic representation of the data acquisition system.

8. A computed tomography system comprising a system as recited in claim 7.

9. A system as recited in claim 7 further comprising a computed tomography system, the data acquisition system is disposed with the computed tomography system.

10. A system as recited in claim 9 wherein the computed tomography system comprises a detector assembly, said data acquisition system disposed within said detector assembly.

11. A system as recited in claim 7 wherein said data is stored in a memory.

12. A system as recited in claim 7 wherein said data is communicated from said data acquisition system.

13. A system as recited in claim 7 wherein said data acquisition system is located remotely from said diagnostic system.

14. A system as recited in claim 7 further comprising a network coupling said computer controller and said data acquisition system.

15. A system as recited in claim 7 wherein said controller has a web browser, said controller generating the screen indicia through said web browser.

16. A method for operating a diagnostic system comprising:  
receiving data from a data acquisition system;  
diagnosing a problem in response to said data;  
generating a screen display corresponding to an schematic representation of the data acquisition system; and

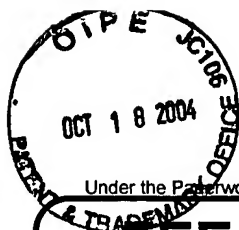
generating a screen indicator on said display device corresponding to a location of a problem on the schematic representation of the data acquisition system.

17. A method as recited in claim 16 wherein receiving data comprises receiving data through an interface.

18. A method as recited in claim 16 wherein receiving data comprises remotely receiving data.

19. A diagnostic system as recited in claim 1 wherein said data is communicated from said data acquisition system.

20. A method as recited in claim 16 wherein said data acquisition system is disposed within a CT system.



PTO/SB/17 (10-04v2)

Approved for use through 07/31/2006. OMB 0651-0032

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# FEE TRANSMITTAL for FY 2005

Effective 10/01/2004. Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT

(\$) 340.00

**Complete if Known**

Application Number	10/064,128
Filing Date	June 13, 2002
First Named Inventor	Claude Scher
Examiner Name	Charioui, Mohamed
Art Unit	2857
Attorney Docket No.	125755 (GEMS 0160 PUS)

**METHOD OF PAYMENT** (check all that apply)☐ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None☒ Deposit Account:Deposit  
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Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
1001 790	2001 395	Utility filing fee	
1002 350	2002 175	Design filing fee	
1003 550	2003 275	Plant filing fee	
1004 790	2004 395	Reissue filing fee	
1005 160	2005 80	Provisional filing fee	
<b>SUBTOTAL (1)</b>			<b>(\$)</b>

**2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE**

	Extra Claims	Fee from below	Fee Paid
Total Claims	-20** =	X	
Independent Claims	-3** =	X	
Multiple Dependent			

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description
1202 18	2202 9	Claims in excess of 20
1201 88	2201 44	Independent claims in excess of 3
1203 300	2203 150	Multiple dependent claim, if not paid
1204 88	2204 44	** Reissue independent claims over original patent
1205 18	2205 9	** Reissue claims in excess of 20 and over original patent

**SUBTOTAL (2)**

(\$)

\*\*or number previously paid, if greater; For Reissues, see above

**FEE CALCULATION** (continued)**3. ADDITIONAL FEES**

Large Entity Small Entity

Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description	Fee Paid
1051 130		2051 65		Surcharge - late filing fee or oath	
1052 50		2052 25		Surcharge - late provisional filing fee or cover sheet	
1053 130		1053 130		Non-English specification	
1812 2,520		1812 2,520		For filing a request for <i>ex parte</i> reexamination	
1804 920*		1804 920*		Requesting publication of SIR prior to Examiner action	
1805 1,840*		1805 1,840*		Requesting publication of SIR after Examiner action	
1251 110		2251 55		Extension for reply within first month	
1252 430		2252 215		Extension for reply within second month	
1253 980		2253 490		Extension for reply within third month	
1254 1,530		2254 765		Extension for reply within fourth month	
1255 2,080		2255 1,040		Extension for reply within fifth month	
1401 340		2401 170		Notice of Appeal	
1402 340		2402 170		Filing a brief in support of an appeal	340.00
1403 300		2403 150		Request for oral hearing	
1451 1,510		1451 1,510		Petition to institute a public use proceeding	
1452 110		2452 55		Petition to revive - unavoidable	
1453 1,370		2453 685		Petition to revive - unintentional	
1501 1,370		2501 685		Utility issue fee (or reissue)	
1502 490		2502 245		Design issue fee	
1503 660		2503 330		Plant issue fee	
1460 130		1460 130		Petitions to the Commissioner	
1807 50		1807 50		Processing fee under 37 CFR 1.17(q)	
1806 180		1806 180		Submission of Information Disclosure Stmt	
8021 40		8021 40		Recording each patent assignment per property (times number of properties)	
1809 790		2809 395		Filing a submission after final rejection (37 CFR 1.129(a))	
1810 790		2810 395		For each additional invention to be examined (37 CFR 1.129(b))	
1801 790		2801 395		Request for Continued Examination (RCE)	
1802 900		1802 900		Request for expedited examination of a design application	

Other fee (specify)

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**SUBTOTAL (3)** (\$) 340.00**SUBMITTED BY**

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Date

10/15/04

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